

Application No. 09/741,639

Atty Docket: 3COM 3423-1

**REMARKS**

Claims 1-5 and 9-55 are pending in this application. Claims 9-25 and 33-49 are allowed. Claims 1, 4, 5, 26-31 and 50-55 are rejected by the Examiner. Claims 2 and 3 are objected to by the Examiner as depending from rejected claims. In this paper, claims 26-31 and 50-55 are cancelled. The rejections of claims 1 and 4-5 are traversed without amendment.

**Rejection Under 35 U.S.C. § 103(a) of Claims 1, 4-5**

The Examiner rejects **claims 1, 4-5** under 35 U.S.C. § 103(a) as unpatentable over Liang et al. U.S. Pat. No. 6,445,773 B1 in view of Wilson et al. U.S. Pat. No. 4,841,526.

**Claim 1**

**Claim 1** includes the limitations:

*determining data flow for the channel in terms of an input intensity  $\lambda_{in}$ , and a probability of having a frame having no or a correctable number of errors  $p$ ; and*

*adjusting channel performance in accordance with the data flow*

The *input intensity  $\lambda_{in}$*  and *determining a probability* limitations are not found in Liang et al. in view of Wilson et al. The meaning of *input intensity  $\lambda_{in}$*  is introduced with reference to FIG. 7A on page 49 of the application. "The input intensities (in frames/sec) of information frame generation are application-dependent ..." Applicants have reviewed the cited passages at col. 1, lines 20-25 and col. 3, lines 55-58, but have not found the *input intensity  $\lambda_{in}$*  used as a parameter. After all, *input intensity  $\lambda_{in}$*  is not the basis of analytical work by Liang et al. The reference summarizes its analytical approach near the top of col. 6, "To estimate the theoretical and practical data rates for the whole bandwidth based on the ADSL DMT standard and modem parameters, the invented DMT test measures and calculates the SNR for each subchannel for the optimum and various practical AGC settings and ADC resolutions." Further down in col. 6, analytical limitations of Laing et al. are expressed:

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- (e) It is not possible for an ADSL modem test to estimate theoretical data rates of upstream and downstream since an optimum AGC setting is not possible for each sub-channel;
- (f) It is not possible for an ADSL modem test to estimate the practical data rates of upstream and downstream for an ADSL modem with different ADC resolution since the actual ADC resolution for each sub-channel is not the same;

Inventor Mitlin has done substantial analytical work, reflected in this claim, which was not anticipated by Liang et al.

As for the *determining a probability* limitation, very substantial probabilistic analysis is included in this application, which enables claim 1. We have searched in vain for any mention of the word "probability" in Liang et al. or any probabilistic analysis. The cited passages do not reference probabilities. The Office Action does not include any point citation for *determining a probability*. This limitation is missing from the reference on which the Examiner relies.

The combination of references does not enable adjustment of channel performance, as claimed. The second reference, Wilson et al. does not teach how to transform measurements and probabilistic analysis into the claimed channel performance adjustment. The whole passage relied on the by the Examiner is:

When the data flow processor 20 is in a transmit state, slow-down mode, write processing function 26 can  
15 process only instructions from the express que 108. In the slow-down mode, the data flow processor 20 has determined that there is already a maximum number of frames outstanding on the communications link and, therefore, no new frames of information ought to be  
20 transmitted. Thus, only frames which relate to previously transmitted and outstanding frames can be transmitted.

This is not enabling in like kind with this 168 page (plus figures) application. Applicant respectfully submits that combining references to produce a mathematical probabilistic analysis requires much more than a surmise by the Examiner. How does the Examiner fit the approach of Liang et al. with this passage of Wilson et al. to enable a probabilistic analysis or to match the enablement found in the application being examined?

Combining references does not produce a mathematical or probabilistic analysis as

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easily as combining mechanical features can produce a gadget.

Therefore, claim 1 should be allowable over Liang et al. in view of Wilson et al.

**Claim 4**

**Claim 4** includes the limitations:

*superimposing the upstream data flow and the downstream data flow to determine a channel data flow*

This limitation is not found in Liang et al. in view of Wilson et al. Meaning is given to superimposing the upstream and downstream data flows with reference to FIGS. 7A-7C, which depict an unique mathematical analysis described on page 51 of the application. Applicant has reviewed the cited passages in cols. 1 and 5, without finding any reference to superimposing data flows or decomposing a system into superimposed data flows. The Examiner's technical explanation of just how Liang et al. is considered to include superimposing data flows would be most appreciated.

Therefore, claim 4 should be allowable over Liang et al. in view of Wilson et al.

**Claim 5**

Introduction of FEC complicates analysis of the superimposed data flow. Claim 5 should be allowable over Liang et al. in view of Wilson et al. for at least the same reasons as claim 4.

Applicant respectfully submits that claims 1, 4-5 should be allowable over Liang et al. in view of Wilson et al.

**Rejection Under 35 U.S.C. § 103(a) of Claims 26-31 and 50-55**

The Examiner rejects **claims 26-31 and 50-55** under 35 U.S.C. § 103(a) as unpatentable over Levin et al. U.S. Pat. No. 6,625,777 B1 in view of Tiedemann, Jr. et al. U.S. Pat. No. 6,317,435 B1. These claims are cancelled.

**CONCLUSION**

Applicant respectfully submits that the claims, as restated herein, are in condition for allowance and solicit acceptance of the claims, in light of these remarks.

If the Examiner does not see how the probabilistic analysis and claiming of a unique approach in this application far overshadow the cited references, a call would be

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appreciated. The undersigned can ordinarily be reached at his office at 650-712-0340 from 8:30 to 5:30 PST, M-F and can be reached at his cell phone 415-902-6112 most other times.

Respectfully submitted,



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